BRETT MEEKER

IRON

Element Symbol: Fe
Atomic Number: 26

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Iron, designated by the chemical symbol Fe, with the atomic number 26, is the second most common metal element on Earth. One of the transition metal elements, iron exists in a variety of different oxidation states, although +2 and +3 are the most common. In its elemental form iron has a lustrous silver-gray surface, however iron reacts with oxygen in air to form iron oxides more commonly known as rust.

The core of the Earth is thought to consist predominantly of both iron and nickel and the high iron content found in meteorites is thought to be evidence of iron being abundant in our solar system. Iron is commonly found as hematite (Fe_2O_3) and magnetite (Fe_3O_4). Due to its abundant nature on the planet, iron is often found as impurities in other minerals. It is an iron impurity that produces the dazzling colour that the sapphire gem is known for.

Iron and alloys of iron (steel) are noted for their structural strength and are the most commonly used metal materials to construct the world we live in. Australia has large deposits of iron ores and is a leading producer of iron metal. Iron also plays an important role in everyday human and animal life. The iron containing porphyrin protein molecule haemoglobin is responsible for oxygen transport in plasma, whilst related compound myoglobin is responsible for oxygen storage in muscle.

Provided by the element sponsor Andrew Blok

ARTISTS DESCRIPTION

“Fe 26” is a polymer plate etching derived from a pencil drawing featuring ‘Iron Man’ and a cast iron staircase, printed with redoxide ink.

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